CLAIMS

1. A CAB molecule comprising an unmodified amino acid sequence, the unmodified amino acid sequence being set forth in SEQ ID NO:2.

2. A CAB molecule, the CAB molecule comprising an amino acid sequence modified from the amino acid sequence set forth in SEQ ID NO:2, the modification comprising at least one of the following positions: 12, 72, 283 or 586, wherein position numbering is with respect to SEQ ID NO:2.

3. The CAB molecule according to Claim 2, the CAB molecule comprising modifications at positions 12 and 72.

4. The CAB molecule according to claim 2, the CAB molecule having the following modifications: 12, 72, 283 and 586.

5. The CAB molecule according to claim 2, the CAB molecule having at least one of the following modifications: A12S, R72G, K283A or S586A.

6. The CAB molecule according to claim 2, the CAB molecule comprising a CAB 1.11 molecule having the following modifications: A12S and R72G.

7. The CAB molecule according to claim 2, the CAB molecule comprising a CAB1.11i molecule having the following modifications: A12S, R72G, K283A and S586A.

8. A nucleic acid encoding a CAB molecule, the CAB molecule comprising an unmodified amino acid sequence, the unmodified amino acid sequence set forth in SEQ ID NO:2.

9. A nucleic acid encoding a CAB molecule, the CAB molecule comprising an amino acid sequence modified from the amino acid sequence set forth in SEQ ID NO:2, the modification comprising at least one of the following positions: 12, 72, 283 or 586, wherein position numbering is with respect to SEQ ID NO:2.

10. The nucleic acid according to claim 9, the CAB molecule comprising modifications at positions 12 and 72.

11. The nucleic acid according to claim 9, the CAB molecule having the following modifications: 12, 72, 283 and 586.

12. The nucleic acid according to claim 9, the CAB molecule having at least one of the following modifications: A12S, R72G, K283A or S586A.

13. The nucleic acid according to claim 9, the CAB molecule comprising a CAB 1.11 molecule having the following modifications: A12S and R72G.

14. The nucleic acid according to claim 9, the CAB molecule comprising a CAB1.11i molecule having the following modifications: A12S, R72G, K283A and S586A.

15. A method of treating a subject in need thereof, the method comprising administering to the subject a CAB molecule and a prodrug that is a substrate of the CAB molecule.

16. The method according to claim 15, wherein the subject is a mammal.

17. The method according to claim 15, wherein the subject is a human.

18. The method according to claim 15, wherein the CAB molecule comprises an unmodified amino acid sequence, the unmodified amino acid sequence being set forth in SEQ ID NO:2.

19. The method according to claim 15, wherein the CAB molecule comprises an amino acid sequence modified from the amino acid sequence set forth in SEQ ID NO:2, the modification comprising at least one of the following positions: 12, 72, 283 or 586, wherein position numbering is with respect to SEQ ID NO:2.

20. The method according to claim 15, wherein the CAB molecule comprises a CAB 1.11 molecule having the following modifications: A12S and R72G.

21. The method according to claim 15, wherein the CAB molecule comprises a CAB1.11i molecule having the following modifications: A12S, R72G, K283A and S586A.

22. The method according to claim 15, wherein the CAB molecule and the prodrug are administered at different times.

23. The method according to claim 22, wherein the CAB molecule is administered before the prodrug so that the time between them comprises a dosing interval.

24. The method according to claim 23, wherein the dosing interval is between about 1 day and about 14 days.

25. The method according to claim 24, wherein the dosing interval is between about 3 days and about 10 days.

26. The method according to claim 25, wherein the dosing interval is between about 7 days and between about 10 days.

27. The method according to claim 25, wherein the dosing interval is between about 3 days and about 7 days.

28. The method according to claim 27, wherein the dosing interval is about 3 days.

29. The method according to claim 27, wherein the dosing interval is about 4 days.

30. The method according to claim 27, wherein the dosing interval is about 5 days.

31. The method according to claim 27, wherein the dosing interval is about 6 days.

32. The method according to claim 27, wherein the dosing interval is about 7 days.

33. The method according to claim 15, wherein the prodrug is a Melphalin-based prodrug.

34. The method according to claim 33, wherein the Melphalan-based prodrug is GC-Mel.